

**ATTACHMENT 8**  
**CONTINGENCY PLAN**  
**[40 CFR 264.50 through 264.56, 264.52(b); R315-8-4.1 through R315-8-4.7]**

## **8.1 INTRODUCTION AND STRATEGY**

The Munition Management Device, Version 1 (MMD-1) Contingency Plan contained in this section describes how MMD-1 test personnel will respond to a fire, explosion, or any unplanned sudden or other release of hazardous waste, hazardous material, or constituents that occurs outside the engineering controls of the MMD-1 test activity that could threaten human health or the environment. Also described is how MMD-1 test personnel will respond to incidental releases or spills occurring within engineering control.

The Dugway Proving Ground (DPG) Chemical Accident/Incident Response Assistance (CAIRA) Plan will be implemented should an incident involving chemical agent occur outside engineering controls. Upon containment and decontamination of the chemical agent-affected area, the DPG Spill Prevention Control and Countermeasure Plan/Installation Spill Contingency Plan (SPCC/ISCP) will be implemented for remediation of hazardous waste or materials. Should an incident involving only non-chemical agent hazardous wastes or materials occur outside engineering controls, the DPG SPCC/ISCP will be implemented. Therefore, the current DPG CAIRA Plan and SPCC/ISCP are hereby adopted and referenced in whole in this Contingency Plan.

Incidental releases or spills occurring within engineering controls will be managed by the Small Burials Contractor (SBC) MMD-1 test personnel. An incidental release is a release of hazardous waste or waste constituents including chemical agent/industrial chemical, where the substance can be absorbed, neutralized, contained, or otherwise controlled by personnel in the immediate release area using emergency equipment on-hand. Spills beyond the management capability of the SBC, yet within engineering controls, will be managed by DPG personnel.

This MMD-1 Contingency Plan will be reviewed and amended in the event of any of the following:

- The RCRA Research, Development, and Demonstration Permit is revised
- The MMD-1 Contingency Plan fails in a test or actual emergency
- Changes occur in the design, construction, operation, maintenance, or other areas of the MMD-1 system or Building 3445 relating to the MMD-1 test activities in a way that increases the potential for fires, explosions, or releases of hazardous waste/materials or hazardous waste constituents, or changes the response necessary in an emergency.

## **8.2 GENERAL INFORMATION**

The MMD-1 is a transportable, trailer-mounted, remotely operated treatment system designed to detoxify chemical agents and industrial chemicals contained in non-explosively configured chemical warfare materiel (CWM). The MMD-1 consists of the following components: munition loading and breaching system; liquid processing system; gas processing system; liquid waste system; waste gas system; reagent processing; trailer heating, ventilation, and air conditioning (HVAC) system, including a carbon filtration system used to purify air vapors leaving the process trailer; high-pressure wash system; and utility systems that support the process systems. Also associated with the MMD-1 system are the Munition Service Magazine (MSM), the Unpack Area (UPA), and three less than 90 day waste storage areas. The MSM is

used to store munitions prior to processing in the MMD-1; the UPA is used to unpack munitions for processing and preparing the processed munition bodies for recycling/reclamation; and the less than 90 day waste storage areas are used to store containerized MMD-1 process wastes pending shipment offsite to a permitted treatment, storage, or disposal facility (TSDF).

This MMD-1 Contingency Plan addresses measures to be taken during emergency situations/incidents arising from MMD-1 test activities occurring at Building 3445, the MSM, and the less than 90 day waste storage areas.

The MMD-1 will be located inside Building 3445, East Chamber at DPG. Building 3445 is located at the Carr Facility (see **Figure 8-1**) between 9th and 10th Avenues. A general layout of Building 3445 is provided in **Figure 8-2**, and a general schematic of the MMD-1 within Building 3445, East Chamber is provided in **Figure 8-3**.

### **8.3 EMERGENCY COORDINATOR [40 CFR 264.52(d), 264.55; R315-8-4.3, R315-8-4.6]**

For chemical agent spill or release the Primary Emergency Coordinator and Primary Assistant Emergency Coordinator are both called.

Primary Emergency Coordinator  
Jim Hanzelka  
481 Country Club  
Stansbury Park, Utah  
(435) 831-5633 (work)  
(435) 882-6322 (home)

Assistant Emergency Coordinator  
Kenneth Proctor  
88 North 100 West  
Tooele, Utah  
(435) 831-5801 (work)  
(435) 882-2672 (home)

In the event that either the Primary Emergency Coordinator or the Primary Assistant Emergency Coordinator is not available, the alternates are listed below.

Alternate Emergency Coordinator  
Paul Davis  
898 Oquirrh Ave.  
Tooele, Utah  
(435) 831-5407 (work)  
(435) 882-5670 (home)

Alternate Assistant Emergency Coordinator  
Charley Warr  
Erda, Utah  
(435) 831-5137 (work)  
(435) 882-0691 (home)

Jimmy White  
Terra, Utah  
(435) 831-5801 (work)  
(435) 837-2377 (home)

Gary Bodily  
317D West 4th Ave.  
Dugway, Utah  
(435) 831-3741 (work)  
(435) 831-4545 (home)

Kenneth Proctor  
88 North 1000 West  
Tooele, Utah  
(435) 831-5801 (work)  
(435) 882-2672 (home)

Harold Chadwick  
22 West Apple  
Grantsville, Utah  
(435) 831-5221  
(435) 884-6314

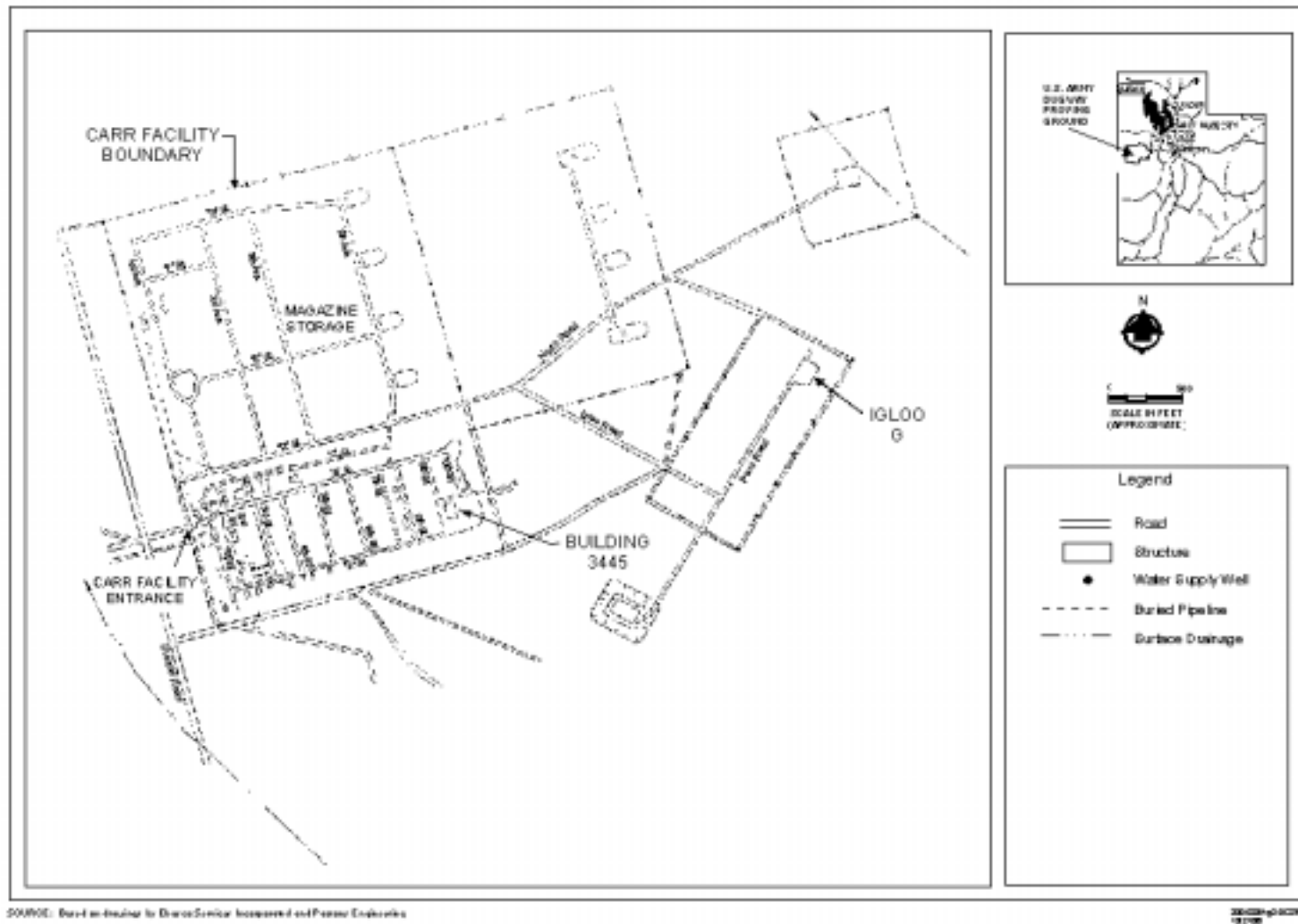


Figure 8-1. Location of Building 3445 at Dugway Proving Ground

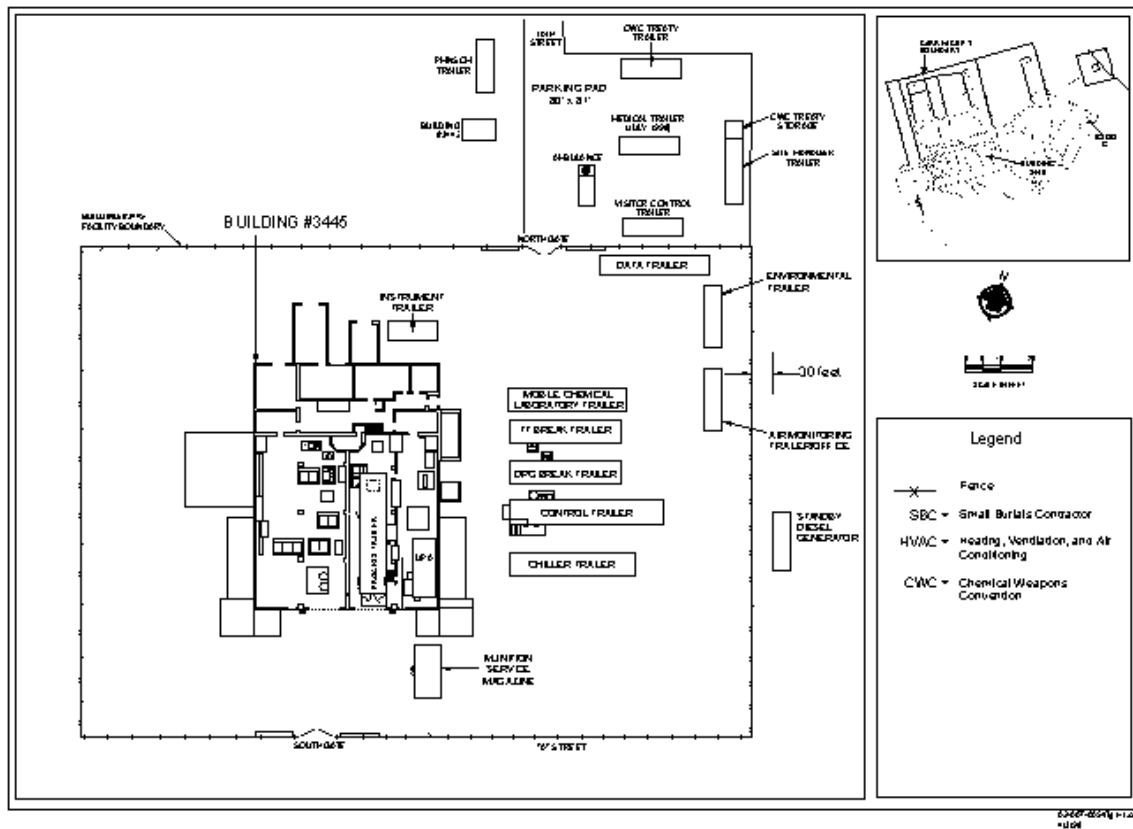
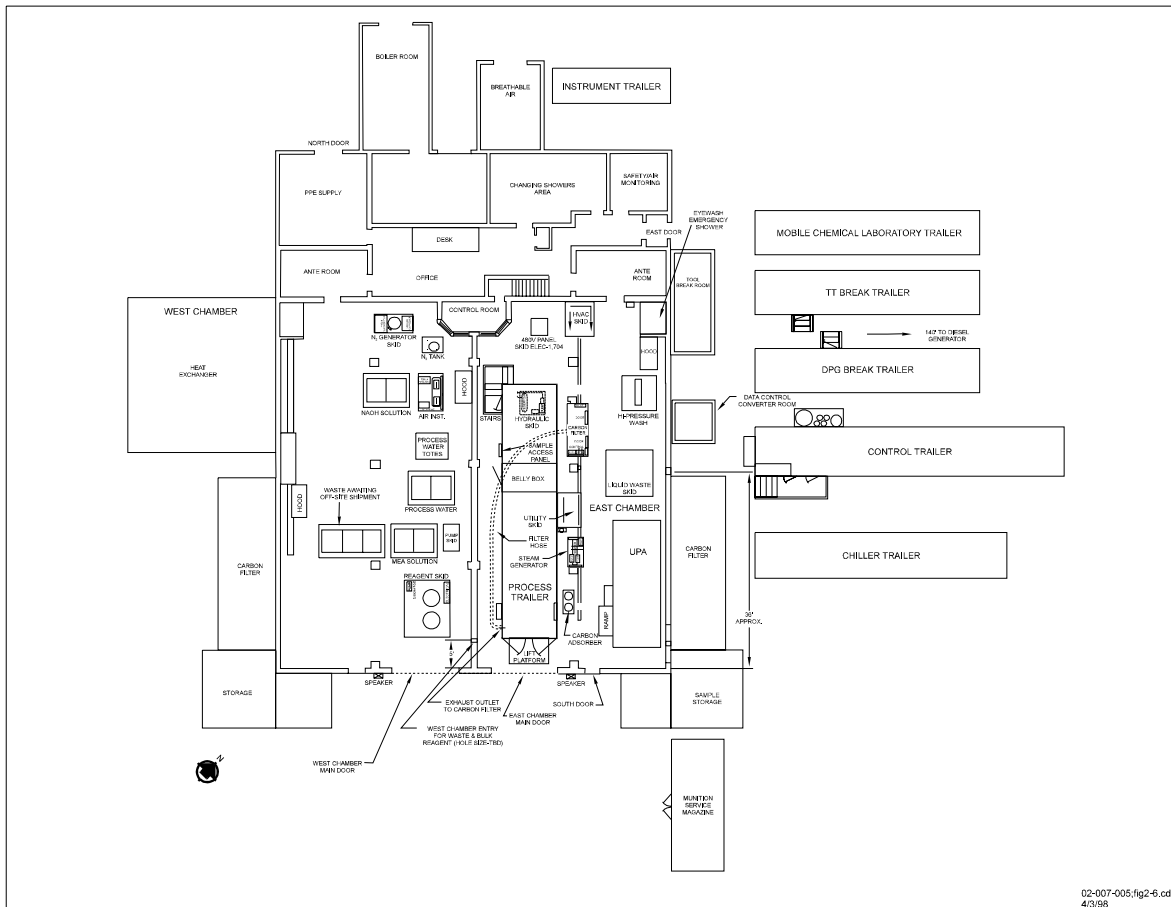


Figure 8-2. General Layout of Building 3445



**Figure 8-3. General Layout of the MMD-1 in Building 3445, East Chamber**

For fire or explosion at Igloo G, the Emergency Coordinator is the only on-duty DPG Fire Chief and alternates listed below.

#### DPG Fire Chief and Assistants

Pat Antry  
Jerry Lamoreaux  
Micheal Roundy  
Fire Protection Division  
Dugway, Utah 84022  
Phone: 911

The Emergency Coordinator has the authority to commit resources needed to manage emergency situations and cleanup spills or other releases.

#### **8.4 IMPLEMENTATION [40 CFR 264.52(a), 264.56(d); R315-8-4.3, R315-8-4.7]**

The DPG CAIRA Plan and/or the DPG SPCC/ISCP will be implemented when a release of chemical agent, industrial chemical, or hazardous waste occurs outside the engineering controls of Building 3445, Munition Service Magazine (MSM), or the A Street less than 90 day waste storage area, and/or when any of the following situations occur:

- Any fire or explosion that involves, or could spread to, hazardous waste management areas at Building 3445
- Spills or releases accompanied by any of the following:
  - imminent danger of fire or explosion
  - release of toxic fumes
  - evidence of spreading toward surface water or groundwater
  - release of material outside DPG boundaries
  - evidence of extensive leaching to soil
  - spill or release of chemical agent.

Incidental releases of chemical agent, industrial chemical, or hazardous waste that occur inside the engineering controls of Building 3445, MSM, or the AA@ Street less than 90 day waste storage area will be managed as part of routine operations. Section 8.5.9 of this permit application describes how incidental spills and leaks will be managed.

#### **8.5 EMERGENCY RESPONSE PROCEDURES [40 CFR 264.56; R315-8-4.7]**

The emergency procedures presented in the following paragraph are those to be followed by MMD-1 test personnel. Once notification of an emergency has been made implementing the DPG CAIRA Plan or the DPG SPCC/ISCP (as applicable), procedures presented in those plans will be followed:

### **8.5.1 Notification [40 CFR 264.52(f), 264.56(d); R315-4.7(d)]**

When a chemical accident/incident emergency occurs, the procedures presented below will be followed:

1. The discoverer of the incident will notify the DPG MMD-1 Test Director or Test Officer and/or the SBC MMD-1 Site Manager or Lead Operator of the incident by vocal command (person to person, intercom, radio).
2. The DPG MMD-1 Test Director with the Test Officer and the SBC MMD-1 Site Manager will assess the incident. Based on this assessment, the DPG MMD-1 Test Director or designee will contact DPG Range Control (ext. 5141 or by radio), the DPG Ditto Security Desk (ext. 110 or 5161), or the DPG Provost Marshal's Office (PMO) (911, ext. 5001, or by radio), which serves as a backup for notification, initiating the DPG CAIRA Plan and/or DPG SPCC/ISCP as necessary.
3. MMD-1 test personnel and visitors will be notified of an emergency by an audible alarm or vocal command. Individuals visiting Building 3445 will be escorted by personnel who are familiar with site-specific emergency notification procedures.
4. On notification of an emergency, all testing and support operations will cease.
5. If the incident has occurred inside Building 3445, personnel will don protective masks and will proceed outside immediately to the upwind assembly point. If the incident has occurred outside Building 3445, personnel will don protective masks and all unprotected personnel (those without prescribed protective clothing) will gather in the Building 3445 office to receive further instructions from the DPG Test Director.
6. The DPG MMD-1 Test Director will identify the evacuation route from Building 3445 based on the type of incident and weather conditions.
7. The personnel will then evacuate Building 3445 to an area upwind. Windssocks located at various locations on the perimeter fencing will indicate wind direction.
8. Properly protected personnel will immediately initiate decontamination and cleanup procedures as appropriate.
9. MMD-1 test personnel will not re-enter or resume operations at Building 3445 until cleared to do so by the DPG MMD-1 Test Director or Test Officer.

### **8.5.2 Identifying the RCRA Hazardous Wastes [40 CFR 264.56(b); R315-8-4.7(b)]**

The MMD-1 test will involve a limited number and type of chemical agents, industrial chemicals, and associated munitions. Only one type of chemical agent or industrial chemical will be treated at a time. Therefore, release of an unknown material is not anticipated. However, if the released material cannot be readily identified, samples may be collected for analysis at the DPG Chemical Laboratory located at the Ditto Technical Center. In the event that material cannot be identified, a "worst case" situation will be assumed and commensurate response procedures will be initiated.

### **8.5.3 Assessment [40 CFR 264.56(c), 264.56(d); R315-8-4.7(b)]**

An assessment on possible hazards to human health and the environment will be conducted according to the current DPG CAIRA Plan or DPG SPCC/ISCP, as applicable.

### **8.5.4 Control Procedures [40 CFR 264.52(a); R315-8-4.3]**

The responses and control procedures described in this section will be initiated in the event of an incident involving chemical agent or industrial chemicals at Building 3445 during MMD-1 test activities involving fire, explosion, spill, or vapor release of chemical agent or other hazardous materials that pose a possible threat to human health and the environment. Also included are procedures that will be followed in response to incidental spills or releases.

#### **8.5.4.1 Incidents Involving Fire or Explosion**

The DPG CAIRA Plan and/or the DPG SPCC/ISCP will be immediately implemented if there is a fire or explosion that involves, or could spread to, hazardous waste management areas at Building 3445.

#### **8.5.4.2 Spills or Releases Outside Engineering Controls**

In the event of a chemical agent spill or release outside engineering controls, the DPG CAIRA Plan will be activated. If decontamination of terrain is required, decontamination measures taken will follow procedures specified in the current DPG CAIRA Plan.

For spills or releases of non-chemical agent hazardous wastes or materials outside engineering controls, the DPG SPCC/ISCP will be implemented.

#### **8.5.4.3 Procedures to Respond to Incidental Spills and Releases**

The following action will be taken in the event of incidental spills or releases:

1. Wear appropriate protective clothing.
2. Contain the spill in the smallest area possible using clay absorbent (or equivalent) and berms.
3. Repair or plug the leak, if possible.
4. Decontaminate the release area.
5. For container spills, remove container contents, if necessary, using a portable centrifugal pump, and transfer material to a new container. For tank spills or releases, remove waste from the tank system within 24 hours or at the earliest practical time to allow cleanup activities and to perform inspection and repair of the tank if necessary.

If the material was released to the secondary containment systems (for either contents released from a container or tank), released material will be either pumped out of the containment system using a centrifugal pump or absorbed using compatible absorbent materials such as pillows, socks, or granules.



6. Decontaminate equipment and clothing as directed by the DPG MMD-1 Test Director or Test Officer, or the SBC Site Manager or Lead Operator, as applicable.

Any equipment used in cleanup regarded as reusable will be sampled using a low-level air monitor to ensure adequate decontamination.

7. Manage spent chemical agent decontamination solutions and other waste decontamination solutions as hazardous waste. Chemical agent decontamination wastes will be given the waste code P999 for spill cleanup of P999 waste material and F999 if cleanup of F999 material.
8. Place absorbed or pumped material into DOT approved containers, label appropriately, and store in a less than 90 day storage area pending shipment offsite to a permitted TSDF.

#### **8.5.5 Prevention of Recurrence or Spread of Fire, Explosion, or Release [40 CFR 264.56(e); R315-8-4.7(c)]**

All operations near a hazardous waste spill, release, fire, or uncontrolled explosion site will be suspended until cleared by the appropriate DPG authority specified in the current DPG CAIRA Plan or DPG SPCC/ISCP. Prior to restarting MMD-1 test operations, process and structural equipment will be inspected for leaks, cracks, and other potential problems. Released waste will be properly collected and containerized. Containers of waste will be stored in a less than 90 day waste storage area pending shipment offsite to an approved treatment, storage, and disposal facility (TSDF).

A review of the cause of a chemical accident/incident, as specified in the current DPG CAIRA Plan or DPG SPCC/ISCP, will be conducted by DPG and MMD-1 test personnel. The operation that caused the chemical accident/incident will not be restarted until adequate corrective and preventive measures have been determined and implemented. Any spill that necessitates implementing this MMD-1 Contingency Plan will be followed by a written report documenting review of the incident and the follow-up actions required.

#### **8.5.6 Storage and Treatment of Released Material [40 CFR 264.56(g); R315-8-4.7(g)]**

Decontaminated materials, decontamination solutions, and absorbents will be containerized in appropriate, DOT approved containers. Damaged or leaking munitions will be repaired and/or overpacked and processed in the MMD-1. Structural devices and equipment will be decontaminated in accordance with procedures described in the current DPG CAIRA Plan or DPG SPCC/ISCP (as applicable) per U.S. Army policies and requirements. Decontamination solutions and decontaminated disposable equipment will be containerized, appropriately labeled, and stored in a less than 90 day waste storage area pending shipment offsite at an approved TSDF.

#### **8.5.7 Incompatible Waste [40 CFR 264.56(h)(1); R315-8-4.7(h)(1)]**

Waste that may be incompatible with the released material will not be treated, stored, or otherwise managed in the area in which the incident occurred until cleanup procedures are completed.

### **8.5.8 Post-Emergency Equipment Maintenance and Personnel Decontamination [40 CFR 264.56(h)(2); R315-8-4.7(h)(2)]**

All emergency equipment used in responding to a spill, fire, explosion, or release will be decontaminated and repaired prior to reuse or will be replaced. See the current DPG CAIRA Plan for decontamination details and responsibilities.

As necessary, personnel decontamination will be conducted as described in the current DPG CAIRA Plan.

After decontamination and cleanup are completed in the affected areas of Building 3445, DPG will notify the Environmental Protection Agency (EPA) and the Utah Department of Environmental Quality (UDEQ) that:

1. Cleanup of the affected areas has been completed so that MMD-1 treatment or storage operations may be resumed without risk of incompatible material coming in contact with spilled material.
2. All emergency equipment is cleaned and ready for its intended use. In addition, the EPA/UDEQ will be notified of the cleanup operation before MMD-1 operations will resume.

### **8.6 EMERGENCY EQUIPMENT [40 CFR 264.52(e); R315-8-4.3]**

The following types of emergency equipment are maintained at DPG for emergency response and are listed in the current DPG CAIRA Plan and SPCC/ISCP:

- Fire protection equipment
- Spill control equipment
- Communications and alarm system
- Decontamination equipment.

The emergency equipment that will be maintained at Building 3445 for use during the MMD-1 test is provided in **Table 8-1**.

### **8.7 COORDINATION AGREEMENTS [40 CFR 264.37, 264.52(c); R315-8-3.7, R315-8-4.3]**

Due to its remote location and the nature of its mission, DPG has its own security force, medical response facilities, and fire department. Outside coordination agreements have been negotiated by DPG with external organizations for medical and firefighting assistance.

A listing of these organizations and copies of coordination agreements are provided in Appendix 7-4 of the *Dugway Proving Ground RCRA Permit*.

**Table 8-1. Building 3445, East Chamber and MMD-1 Site Operations Emergency Equipment**

<b>Equipment</b>	<b>Capability</b>	<b>Quantity</b>	<b>Equipment Location</b>
Hand tools	Small spill cleanup	Two each	Building 3445, East Chamber
	\$ shovels		
	\$ brooms		
	\$ mops		
Portable wet/dry shop vacuum	Small to medium spill cleanup	One	Building 3445, West Chamber
Fire extinguisher (ABC)	Handheld	Two	Building 3445, East Chamber, Change Area/Shower
MMD-1 Spill kit	Hazardous Waste Cleanup	Two	Building 3445, East Chamber, Building 3445, West Chamber
	\$ 55-gallon salvage drum (1)		
	\$ polyethylene shovel (1)		
	\$ 30-50-lb bags Labsorb <sup>J</sup> absorbent		
	\$ 2 pair Tyvek poly laminated coveralls		
	\$ 2 pair Nitrile rubber gloves		
	\$ 2 pair fog-free goggles		
	\$ 25 foot nylon rope (1)		
	\$ duct tape (2 rolls)		
Ambulance <sup>a</sup>	\$ Emergency Medical Technicians (2)		Building 3445 Parking Lot
	\$ medical supplies including Mark I kits		
	\$ stretcher		
	\$ trauma kit		

NOTE:

- a The ambulance and associated emergency medical technicians will only be present during MMD-1 detoxification operations; otherwise, they will be on 15 minute standby.

## **8.8 EVACUATION PLAN [40 CFR 264.52(f); R315-8-4.3(e)]**

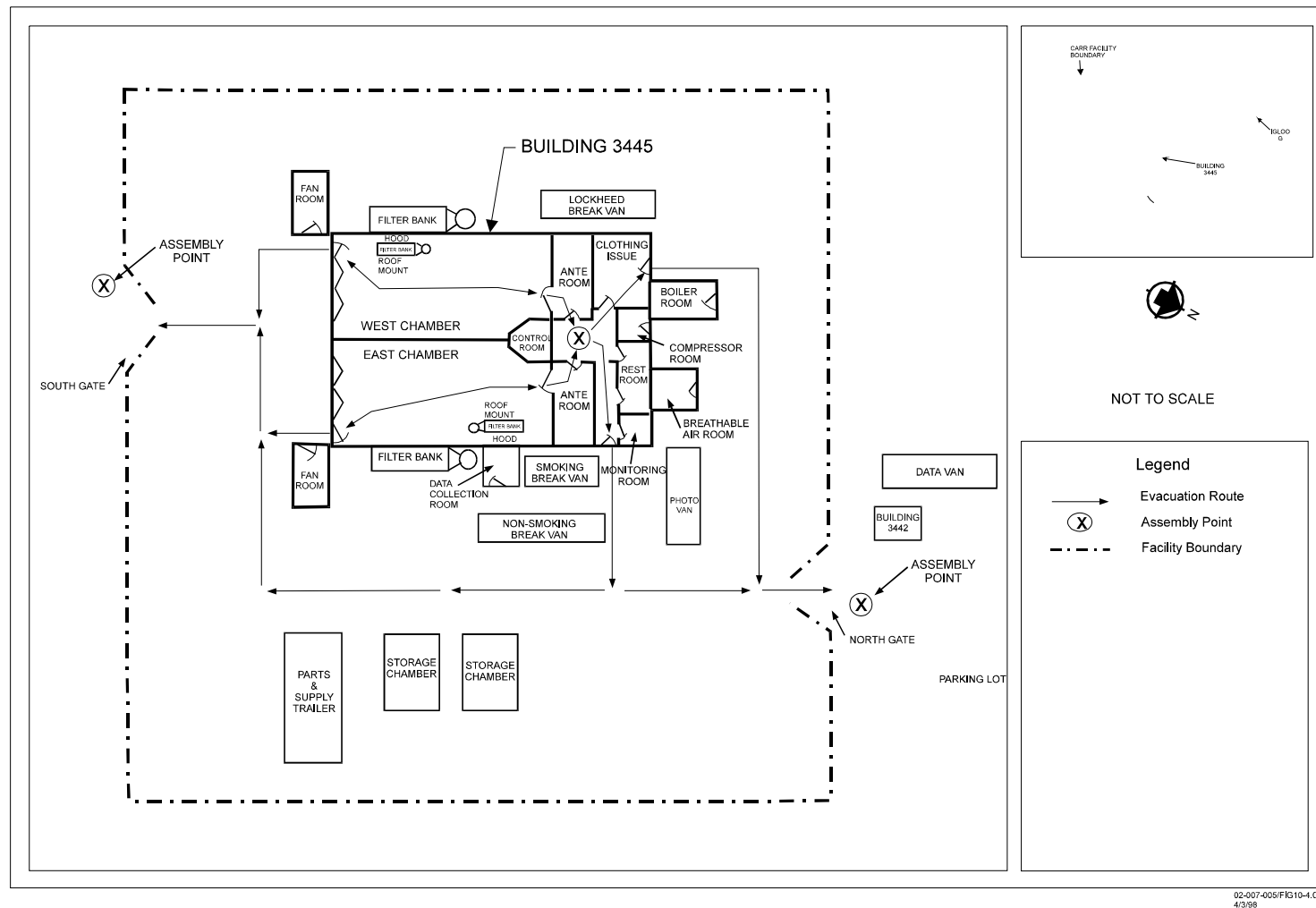
Personnel assigned to MMD-1 test activities at Building 3445 will be instructed in evacuation signals, procedures, and routes from Building 3445.

The evacuation route from Building 3445 is presented in **Figure 8-4**. Evacuation routes from Building 3445 will be posted at various work locations within Building 3445.

### **8.8.1 Evacuation of Building 3445 Facility**

Evacuation procedures are as follows:

1. The MMD-1 DPG Test Director or designee will make the decision to evacuate.
2. Upon direction to evacuate, the MMD-1 Test Director or designee will notify all personnel in the area of an evacuation by an audible alarm and/or vocal command.
3. If the incident has occurred inside Building 3445, personnel will don protective masks and will proceed outside immediately to the upwind assembly point. If the incident has occurred outside Building 3445, personnel will don protective masks and all unprotected personnel (those without prescribed protective clothing) will gather in the Building 3445 office to receive further instructions from the DPG Test Director.
4. The DPG Test Director or Test Officer will identify the evacuation route from Building 3445 based on the type of incident and prevailing wind.
5. MMD-1 test personnel will evacuate the Building 3445 following the determined evacuation route.
6. The DPG Test Director or designee will contact the Emergency Operations Center by phone or radio and will indicate the number of personnel requiring transportation from the Building 3445 facility assembly point as necessary.
7. If required, transportation will be provided for all personnel at the designated assembly point. Personnel who are injured or may have been exposed to hazardous chemicals or chemical agents will be immediately taken to the DPG Health Clinic.



02-007-005/FIG10-4.CDR  
4/3/98

## **8.9 REQUIRED REPORTS [40 CFR 264.56(d)(2); R315-8-4.7(d)(2), R315-9-4]**

A follow-up written report of any incident requiring MMD-1 Contingency Plan implementation will be prepared by the DPG Director of Environmental Programs. This report will be submitted to the UDEQ within 15 calendar days of the incident and will include the following information:

- Name, address, and telephone number of DPG
- Name, address, and telephone number of the DPG Installation Commander
- Name, address, and telephone number of the Chemical Accident/Incident Control Officer (CAICO)
- Date, time, location, and type of incident
- Name and estimated quantity of materials involved
- Extent of injuries, if any
- An assessment of actual or potential hazards to human health or the environment (where applicable)
- Estimated quantity and disposition of recovered material that resulted from the incident
- A description of intended actions to prevent a recurrence.

A copy of the incident report will be maintained in the MMD-1 operating record.

The EPA (Region VIII) may also request a written report on the incident within 60 calendar days of the event. This report will be prepared by the Emergency Operations Center and will contain the above information plus the following additional details:

- Date and year of initial MMD-1 operation
- Maximum storage or handling capacity of the MMD-1 and normal daily workloads
- Description of the MMD-1 system and DPG, including maps, spill flow diagrams, and topographical maps
- Complete copies of the CAIRA Plan, including amendments
- The causes of the release, including a failure analysis of the system or subsystem in which the failure occurred
- The corrective actions and countermeasures taken, including an adequate description of equipment repairs or replacements
- Additional preventive measures taken or contemplated to reduce the possibility of recurrence
- Other information the Regional Administrator may require.